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ABSTRACT

The purpose of this study was to determine whether relationships exist among: (1) the sex and family composition patterns of children 3.5 to 5 years of age; and (2) sex-role stereotyping, as measured by the Sex Role Learning Index (SERLI). Subjects were grouped into eight family composition patterns consisting of female and male subjects from one- and two-parent families, with and without same-sex older siblings. A significant main effect for sex was found in the Child Activities Sex-Role Preference section of the SERLI. Male children were more sex-role stereotyped than were female children with regard to preference for children's activities. Female and male children from one-parent families in which a same-sex older sibling was present were more sex-role stereotyped in children's activities selection than were children from one-parent families in which no same-sex older sibling was present and children from two-parent families in which a same-sex older sibling was present. Findings from the Adult Activities Sex-Role Preference section of the SERLI indicated that male children were more sex-stereotyped than were female children with regard to preference for adult activities. Children from two-parent familes were more aware than those from one-parent families of sex-role stereotypes with regard to what is traditionally appropriate for one's own sex. A 62-item reference list concludes the document. (RH)

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Gender, Family Composition and Sex-Role Stereotyping by Young Children

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Abstract

The purpose of this study was to determine if relationships exist among the sex and family composition patterns of children aged three-and-one-half to five years, and sex-role stereotyping as measured by the Sex Role Learning Index (SERLI). The sample of 96 subjects, was drawn from a population consisting of those children enrolled in preschools and/or day care centers in Topeka, Kansas. They were grouped into eight family composition patterns which consisted of female and male subjects from one and two parent families, with and without same-sex older siblings. The statistical procedure used to analyze the scores from four sections of the SERLI was a three-factor analysis of variance, (ANOVA), followed by the Scheffe' post-hoc procedure. The alpha level was set at .05. The Bartlett and Cochran tests for homogeneity of variance were also applied. A significant sex main effect was found in the Child Activities Sex-Role Preference section of the SERLI. Male children were more sex-role stereotyped than female children with regard to preference of children's activities. The significant two-way interaction found in this section of the test indicated that both female and male children from one parent families where a same-sex older sibling was present were more sex-role stereotyped in children's activities selection than children from one parent families where no same sex older sibling was present and children from two

parent families where a same-sex older sibling was present. In the Adult Activities Sex-Role Preference section of the SERLI a significant sex main effect was found for males. Male children were found to be more sex-role stereotyped than female children with regard to preference of adult activities. A significant parent main effect was found. Children from two parent families were more aware of sex-role stereotypes with regard to what is traditionally appropriate for one's own sex, than children from one parent families. In conclusion, this study supported the fact that children have highly stereotypic views of sex-role at an early age. Gender and family composition are factors which effect sex-role stereotyping.

Table of Contents

	Page
ACKNOWLEDGEMENTS	ii
TABLE OF CONTENTS	iii
LIST OF TABLES	vi
LIST OF FIGURES	vii
CHAPTER	
I. THE PROBLEM	1
Introduction	1
The Problem	4
Research Questions	5
Definitions of Terms	8
Variables	9
Significance of the Study	10
Delimitations of the Study	12
II. REVIEW OF THE LITERATURE	14
Terms Commonly Found in the Literature	14
Two Theories of Sex-Role Acquisition	16
Age Related Knowledge of Sex-Role Stereotypes by Young Children	18
Means of Assessing Sex-Role Stereotypes by Young Children	21
Culture Fair Testing	26
Childrens' Perceptions of Occupational Sex-role Stereotypes	28
The Effects of the Family on Sex-Role Stereotyping by Young Children	31
Summary	39

CHAPTER

Page

III. RESEARCH METHODOLOGY..... 41

Introduction..... 41

Instrument..... 42

Subject Selection..... 46

Data Collection..... 47

Statistical Procedure..... 48

Null Hypotheses..... 49

Diagrams of cells in the ANOVA..... 52

Summary..... 59

IV. ANALYSES OF THE DATA..... 60

Introduction..... 60

Results..... 60

Report of Significant F Ratios..... 65

Summary..... 68

V. SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS..... 71

Summary of the Study..... 71

Conclusions..... 73

Recommendations..... 76

Homes and Schools..... 76

Methodology and Instrumentation..... 78

Future Study..... 79

REFERENCES..... 81

List of Tables

		Page
Table 1.	Test-Retest Reliabilities for the SERLI by Sex of the Experimenter.....	44
Table 2.	Validity Correlations Between the Sex Role Learning Index (SERLI) and the It Scale for Children (ITSC) Scores.....	45
Table 3.	Significance of the F Ratio and Hypothesis Relationship to Main Effects and Interactions.....	62
Table 4.	Cell Means for SERLI Test Sections for th Factor ANOVA.....	64
Table 5.	Own Sex-Role Discrimination Test Scores.....	65
Table 6.	Child Activities Sex-Role Preference Test Scores.....	67
Table 7.	Adult Activities Sex-Role Preference Test Scores.....	68

CHAPTER I

INTRODUCTION

Of all the roles one fills during a lifetime, the role based on gender is perhaps the one acquired earliest and retained most rigidly. Sex-role stereotyping has restrictive consequences when it produces mutually exclusive conceptualizations of appropriate behaviors and attributes for both women and men (Flerx, Fidler, & Rogers, 1976).

Children are guided at an early age to an understanding of behavior other members of society find acceptable. As they grow up they conform to limiting, stereotyped ideas of what females and males should be. By the time children are four-to five-years-old they have learned to play with sex-typed toys (Eisenberg, Murray, & Hite, 1982). They correctly associate sex-typed objects with the appropriate, but stereotyped, sex (Thompson, 1975). It has been found that young males have more initiative and are more active, while females are more dependent and nurturant (Havighurst, 1983). Young children are highly stereotyped with regard to career options (Garrett, Ein, & Tremaine, 1977) and identify the best occupations as those appropriate for males (Teglasi, 1981). Females perceive more occupations to be limited to one sex and have more of a preference for sex-typed careers than do males (Lavine, 1982). This conformity keeps members of both sexes from reaching their full potentials (Gillis, 1981).

Since children spend the first years of their lives primarily within their homes, and since children have very stereotypic sex-role views by the time they enter formal schooling, it has been important to study factors within the home to determine what influences sex-role stereotyping. For educators to successfully meet the needs of the children they teach, they should understand the influences within the family promoting sex-role stereotyping.

Several home factors have been studied thus far. Father absence has an effect on children of both sexes. In single parent, female headed households, male children tend to identify with female roles. Males in female headed households are less feminized when an older brother is present (Marino & McGowan, 1976). Both boys and girls show higher levels of androgyny in single parent homes (Kurdek & Siesky, 1980). Maternal employment effects sex-role stereotyping (MacKinnon, Brody, & Stoneman, 1982; Marantz & Mansfield, 1977; Seegmiller, 1980). The father's role in child-rearing has also been found to be a factor (Lynn, 1976; Russell, 1978). Older, same-sex siblings were found to be a stronger influence on sex-role stereotyping than parents, in one study (Barry, 1980). However, in another study, siblings were not found to be highly influential (Katz & Rank, 1981). Cross-sex play was found to be more common among children who came from single-sex families (Tauber, 1979). One study pointed out that parents with highly stereotypic views do not

necessarily have children with highly stereotyped behavior (Smith & Daglish, 1977).

A review of related literature revealed no study which focused on the cultural impact on sex-role stereotyping of young children. Differing social and cultural groups face the common problem of sex-role stereotyping, but are influenced by and have responses which are embodied in their customs and traditions (California State Department of Education, 1977).

Two major learning theories address acquisition of sex-role stereotyping. In the view of social learning theorists, sex-typed behaviors and attitudes are acquired through observation, imitation and reinforcement (Brooks-Gunn & Matthews, 1979). Cognitive theorists suggest that young children value same-sex models and seek out, surround themselves with, and emulate them. Because their cognitive development is still tied to concrete operations, young children have very simplistic views of the two sexes (Bascow, 1980). Both theories suggest that people in the lives of young children play a major role in their sex-role socialization. Coupled with the fact that children spend their first years primarily at home, the importance of studying role models within the family is implied.

The Problem

As the literature indicates sex-role stereotyping is acquired at an early age. Also, a variety of factors within families contribute to the sex-role stereotyping exhibited by young children. And two major learning theories suggest that role models are important factors in sex-role socialization. Therefore, this study will look at the relationships among sex and family composition patterns of children aged three-and-one-half to five, and Own Sex-Role Discrimination, Opposite Sex-Role Discrimination, Child Activities Sex-Role Preference and Adult Activities Sex-Role Preference as measured by the Sex Role Learning Index.

The family composition patterns chosen for the study are ones commonly found. They include two parent and one female parent headed homes. Same-sex older siblings will also be included in the family composition patterns since the literature indicates their importance in influencing younger sibling's sex-role stereotyping (Barry, 1980).

The independent variables chosen for this study have not previously been combined to study possible interaction effects in addition to main effects. Previous researchers have studied some similar single factors, but none has blended the variables identified in this study, which when combined, represent common family patterns. Researchers in the behavioral sciences are faced with complex environments in which to study a phenomenon. It is both realistic and

practical to study the sex-role stereotyping of young children as a manifestation of multiple factors within the family.

The primary value of this study lies in the assumption that one goal of education is to provide a curriculum which meets the needs of all students and facilitates development of their full potentials. If the determinants of the acquisition of sex-role stereotyping can be further delineated, educators can better meet the needs of all students through their curriculum and instruction.

Problem Statement

What is the relationship among the sex and family composition patterns of children aged three-and-one-half to five years, and sex-role stereotyping as measured by the Sex Role Learning Index.

Research Questions

The research questions reflect all possible combinations of the independent variables.

1. Will male subjects have significantly higher mean scores on the Sex Role Learning Index (SERLI) than female subjects?

2. Will children from one parent families have significantly higher mean scores on the SERLI than children from two parent families?
3. Will children with a same-sex older sibling have significantly higher mean scores on the SERLI than children with no same-sex older sibling?
4. Will female subjects with a same-sex older sibling have significantly higher mean scores on the SERLI, than female subjects with no same-sex older sibling?
5. Will male subjects with a same-sex older sibling have significantly higher mean scores on the SERLI than male subjects with no same-sex older sibling?
6. Will female subjects from two parent families have significantly higher mean scores on the SERLI than female subjects from one parent families?
7. Will male subjects from two parent families have significantly higher mean scores on the SERLI than male subjects from one parent families?
8. Will children from one parent families where there is a same-sex older sibling present have significantly higher scores on the SERLI than children from one parent families where there is no same-sex older sibling present?
9. Will children from two parent families where there is a same-sex older sibling present have

significantly higher scores on the SERLI than children from two parent families where there is no same-sex older sibling present?

10. Will female subjects from two parent families where there is a same-sex older sibling present have significantly higher mean scores on the SERLI than female subjects from two parent families where there is no same-sex older sibling present?
11. Will male subjects from two parent families where there is a same-sex older sibling present have significantly higher mean scores on the SERLI than male subjects from two parent families where there is no same-sex older sibling present?
12. Will female subjects from one parent families where there is a same-sex older sibling present have significantly higher mean scores on the SERLI than female subjects from one parent families where there is no same-sex older sibling present?
13. Will male subjects from one parent families where there is a same-sex older sibling present have significantly higher mean scores on the SERLI than male subjects from one parent families where there is no same sex older sibling present?
14. Will female subjects from two parent families where there is a same-sex older sibling present have

significantly higher mean scores on the SERLI than female subjects from one parent families where there is a same-sex older sibling present?

15. Will male subjects from two parent families where there is a same-sex older sibling present have significantly higher mean scores on the SERLI than male subjects from one parent families where there is a same-sex older sibling present?
16. Will female subjects from two parent families with no same-sex older sibling have significantly higher mean scores on the SERLI than female subjects from one parent families with no same-sex older sibling present?
17. Will male subjects from two parent families with no same-sex older sibling have significantly higher mean scores on the SERLI than male subjects from one parent families with no same-sex older sibling present?

Definition of Terms

Family composition pattern refers to these configurations: one female parent family, two parent family, a family in which an older sibling the same sex of the subject is present, and a home in which there is not an older same-sex sibling.

Sex-role stereotyping is defined as overgeneralization by society concerning expectations about sex-appropriate activities, attributes, preference and the desire to adhere to these concepts.

A family includes any adults and children living together, whether related or not, for at least one year prior to the assessment date.

Same-sex older sibling refers to any older, same-sex child living in the family.

Parent refers to any male or female adult serving in a parenting role in the family.

Sex Role Learning Index is an instrument designed to measure sex-role stereotyping discrimination and preference of young children.

Sex-Role discrimination reflects awareness of sex-role stereotypes.

Sex-Role preference is the desire to adhere to sex-role stereotypes.

Preschool means a licensed facility which provides either part day or full day care and learning experiences for 13 or more children, six weeks to 16 years of age.

Variables

The independent variables in this study are sex of subject, and family composition patterns which include: one female parent family, two parent family, a family in which an

older sibling the same sex of the subject is present, and a home in which there are no same-sex older siblings.

The dependent variables will be mean scores on the Sex Role Learning Index, which measures the acquistion of sex-role stereotyping discrimination and preference of young children.

Intervening variables, which will be controlled for by random selection of subjects, included factors within the home and school environments, such as: race, parental sexism, religion, socio-economic status, educational background of parents, materials in the home, teacher sexism and classroom materials.

Significance

Both parents and educators want children to have the opportunity to develop to their fullest potentials, but some of the skills and abilities children need to acquire to facilitate optimal development are found to be linked, mutually exclusively, to female and male sex-roles. And as children learn their biological gender identity, they also quickly learn that there are prescribed roles which accompany their sex. An examination of the outcomes of traditional sex-role stereotyping has revealed that girls and boys are channelled into sex-typed behaviors that do not reflect the diversity of their individual abilities (McCune, 1976).

It has long been recognized that families are very influential in the future attainments of their children. A substantial body of research has accumulated documenting moderate to high relationships between the family background and the intellectual, occupational and economic attainments of those individuals as adults (Henderson, 1981). Therefore, it is imperative that families, in addition to schools, acknowledge and understand the impact of sex-role stereotyping to begin to overcome its restrictive influences.

In this study family composition patterns, which include one and two parent families and same-sex older siblings, will be determined, as will the sex of each three-and-one-half to five year old subject. These variables will be examined both independently and in various combinations to see if there is a relationship to scores on a sex-role stereotyping instrument. Previous researchers have not studied the interrelatedness of these variables.

All of the factors previously mentioned should be of concern to educators since sex-role stereotyping contradicts the educational goal of entitling all children to a fair chance of developing their individual potentials (Nation at Risk, 1983). In order for schools to be effective in realizing this goal, policy makers, staff developers, curriculum designers and teachers need to be aware of the restricting influences of sex-role stereotyping and its roots. Therefore, they need to understand influences within the home on sex-role stereotyping so they can best meet the

needs of the children they serve. Researchers have studied the impact of the curriculum on children's sex-role stereotyping and the results indicate that schools can significantly influence children's sex-role concepts (Gillis, 1981). Educators should also examine the dynamics of diverse cultures and the implications for developing teaching strategies (National Council for the Accreditation of Teacher Education, 1982).

This study should contribute to the existing body of knowledge on the influences of sex-role stereotyping and provide information for parents, teachers and administrators so they can help children develop to their fullest capacities.

Delimitations of the Study

The subjects used for this study will be randomly selected from those children attending several randomly selected preschools in a midwestern city. The study should only be replicated with, or generalized to, a similar population.

It is recognized that due to sampling error, the random sample of subjects is not necessarily an identical representation of the population. But, since in random selection every member of the population has an equal chance of being selected, members of the population with distinguishing characteristics will be counterbalanced by the

selection of other members of the population with opposite qualities.

The variables in this study which should be controlled for by the random selection of subjects include factors within the home and school environments such as: race, parental sexism, religious beliefs, socio-economic status, educational backgrounds of parents, materials in the home, teacher sexism and classroom activities and materials.

CHAPTER II

REVIEW OF THE LITERATURE

In order to effectively conduct a study on sex-role sterotyping in young children many terms need to be defined and concepts and theories need to be discussed. Also, what is known about the acquisition and measurement of sex-roles should be reviewed. In this chapter current literature on sex-role stereotyping in young children will be summarized and studies related to this topic will be reviewed.

Terms Commonly Found in the Literature

Many terms are used to discuss the topic of sex-roles. The term "role" has been identified as a cluster of socially or culturally defined expectations that individuals in a given situation are expected to fulfill (Flerx, Fiddler, & Rogers 1976). "Sex- role" has been defined as a constellation of qualities an individual understands to characterize males and females in one's own culture (Havighurst, 1983). The term "sex-role identity" refers to the sense of oneself as a unique person including gender, body image, self esteem, self concept and sex-role. In the literature "gender" has two definitions. Havighurst (1983) states that gender does not have a biological connotation

and may be used to distinguish between culturally appropriate traits that are masculine or feminine. However, just the opposite is found in Brooks-Gunn and Matthews (1979) when it is stated that gender identity refers to an individual's biological sex, and sexual identity refers to one's sexual preference. "Gender stability" refers to knowledge that one's sex will remain constant. The phrase "gender understanding" may be used with young children to refer to the clarity of the child's view of appropriate sex- role behavior (Havighurst, 1983). "Sex-typing" is the process by which adults help children acquire an understanding of their feminine and masculine sex-roles (Robinson & Hobson, 1978). In "sex-role acquisition", children come to value same-sex people, objects and activities (Thompson, 1978).

The desire to adhere to the cultural standards regarding appropriate masculine and feminine behavior is "sex-role preference". "Sex-role discrimination" refers to a child's awareness of sex-role stereotypes. In "sex-role confirmation" the child adheres to the conception of what is sex appropriate (Edlebrock & Sugawara, 1978). Performing behaviors characteristic of one sex is "sex-role adoption". "Sex-role stereotyping" has a common definition across the literature. Stereotypes are strongly held overgeneralizations, universally shared within a given society, and are learned as a part of growing up in that society. All individuals in the group are labeled with the so called group characteristics (Bascow, 1980). Havighurst

(1983) suggests that sex-role stereotypes are sets or collections of behaviors, attitudes, or traits that define membership in one or the other social category . In Brooks-Gunn and Matthews (1979), stereotype refers to a culturally determined and relatively inflexible means of viewing people. Although sex-role stereotyping has restrictive consequences for both sexes, the limitations for females are more pronounced. The attributes and functions stereotypically associated with the feminine role frequently are less highly valued than those assigned to masculine roles (Flerx, Fidler, & Rogers, 1976). The last concept to be discussed here is "androgyny". This word comes from two Greek words, andros (male) and gyne (female) and can be defined as having both male and female qualities or being sex-role flexible (Havighurst, 1983).

Two Theories of Sex-Role Acquisition

Two developmental theories surfaced in the literature related to sex-roles. In the social learning theory theorists such as Bandura and Mischal deny that sex-role identity needs to be predicated on a relationship with the same sex parent. Instead they recommend looking for external forces. It has been suggested that exposure to sex-typed models in children's books and on television, plays an important role in the learning of traditional sex-role standards (Thompson, 1975). Sex-role acquisition depends on

the imitation of sex-typed behavior. According to the social learning theory, the most important learning principles to influence sex-role learning are reinforcement, observation and imitation. In the view of social learning theorists sex-typed behaviors and attitudes are acquired through social rewards that follow sex-appropriate responses (Brooks-Gunn & Matthews, 1979). Because different behaviors get reinforced and modeled by the different sexes, children develop an awareness of the two sex-roles. Social learning theory regards the child as passive. The steps in this theory include exposure to sex typed behavior, imitation of same-sex role model, acquisition of sex-typed behavior, and finally, gender identity (Bascow, 1980).

In the cognitive developmental process based on Piaget's work, Kohlberg states that children, depending on which stage they are in, have different ways of perceiving the world. Perception of sex-role is related to the current intellectual stage. First, children realize the world can be divided into two groups, male and female. They know they belong to one of these groups. The second step in role acquisition involves attaching a value to people, attitudes and behaviors of the same sex. Children begin to seek out same sex people to emulate, same sex objects with which to surround themselves, and same sex activities in which to participate. Finally, children identify with the same sex parent. This theory emphasizes the active role of the child. The way children learn their sex-roles is a function of their level of

understanding of the world. One's label of self as a girl or boy becomes an organizing focus of future behavior. The child begins valuing same sex behavior then seeks out models. Before the age of five, children do not have an understanding of physical constancy. Because their cognitive development is still tied to concrete operations, children aged six to seven often have very simplistic and exaggerated pictures of the two sexes. With future cognitive development, these stereotyped conceptions become modified to incorporate exceptions (Bascow, 1980). The cognitive-developmental theory suggests that the development of gender identity during early and middle childhood is sequential in nature, culminating in a firm concept of gender constancy identified with concrete operational thought (Emmerich, Goldman, Kirsh, & Sharabany, 1977).

Age Related Knowledge of Sex-Role Stereotypes by Young Children

Several studies have been conducted to determine at what age children develop sex-role stereotyping. The six research projects described below cover an age range of 20 months to six years.

In a study conducted by Reis and Wright (1982), the question of when children begin acquiring adult sex-role stereotypes was examined. Four groups of children were asked to gender classify a list of behavioral traits. Evidence of

sex stereotyping appeared at three-and-a-half years and increased both across the different age groups and within the same children as they aged. The results are interpreted as supporting the cognitive-developmental theory.

The work of Williams, Bennett and Best (1975) addresses children five years of age and older. These findings summarize the conclusions they reached: knowledge of sex stereotypes appears to develop in a similar manner among both boys and girls; kindergarten children show a high degree of knowledge of adult sex stereotypes and, this knowledge increases to the second grade. It was found that children of both sexes seem to begin their learning of the male stereotype at an earlier age than the female stereotype. In addition there seems to be a greater degree of similarity between the adult male stereotype and the behavior expected of young boys than there is for the adult female stereotype and the behavior of young girls.

The implication of these findings is that the child's earliest learnings regarding sex stereotypes occur during the preschool period and that these are further reinforced by experiences occurring during the first year or two of school. The results of this study provide no evidence regarding the learning situations in which the young child acquires knowledge of sex stereotypes.

To further answer the question posed by Reis and Wright, the work of Kuhn, Nash and Brucken (1978) clearly demonstrates that children as young as two years of age

possess substantial knowledge of sex-role stereotypes. Knowledge of sex-role stereotypes was closely related to subjects' comprehension of gender identity as a permanent, irreversible characteristic. The stereotypes of boys and girls were only partially overlapping. Both sexes tended to believe positive things about themselves and negative things about the opposite sex. As children come to regard their gender as a permanent, irreversible aspect, they begin to positively value this aspect. This idea is the central theme underlying Kohlberg's cognitive-developmental theory. It is the child's recognition of sex assignment as permanent that leads to identification with the same sex parent.

In a study conducted by Etaugh and Riley (1979), the instrument used in the previous study was modified and used with three and four year old children. These preschoolers displayed less sex-role stereotyping than the five year olds in the Williams study. It was found that girls and boys did not differ in total sex-role stereotyping and boys' knowledge of the male stereotype was greater than that of the female stereotype, whereas girls displayed more even knowledge of the two.

Blakemore, LaRue and Olejnik (1979), conducted research to examine the relation between identifying toys as boy's or girl's, and sex-appropriate toy preferences. The subjects were two, four and six year olds whose toy preferences were measured. For the boys sex appropriate preference did not increase significantly with age because it was strong at all

ages. At the age of two girls demonstrated no sex appropriate toy preference, but at ages four and six the girls demonstrated strong sex appropriate preferences. This study suggests that cognition plays a role in sex-role development.

Toy choices of 20 month old boys and girls were assessed in a study conducted by Fein, Johnson, Kosson, & Wasserman, (1975). The purpose of the study was to examine whether toy preferences at 20 months exhibit cross-sex asymmetry, whether toy preferences are modified in a modeling situation, and whether children's familiarity with toys is related to toy preference. The results indicated that the toy preferences of 20 month old children match adult sex stereotypes. Also, toy ownership did not correlate with toy preference scores. Asymmetry appeared in the toys children owned. Girls had boy toys, but boys less often had girl toys.

All of the studies mentioned support the idea that sex-role stereotyping occurs during the preschool years.

Means for Assessing Sex-Role Stereotypes by Young Children

Many instruments and/or methods have been developed to assess sex-role stereotyping in young children. They employ use of toys, pictures, sorting, questioning, observing, adjectives, stories, infants and fantasy play. The

instruments are briefly described with the research projects with which they were associated.

In a study conducted by Edelbrock and Sugawara (1978), the Sex Role Learning Index (SERLI) was administered to 119 preschool children. The SERLI is a picture-choice instrument designed to compare children's preferences to both sex-role stereotypes and each child's conception of what is sex appropriate. It was designed to measure the concepts of sex-role discrimination, preference and confirmation. Each form (one for boys, one for girls) contains 40 black and white line drawings organized into three sections. The first section has child figures, the second section has adult figures and the last section has objects. The SERLI was designed to allow the individual child the opportunity to specify any particular item as being appropriate for both sexes and to score the child's preference according to both the child's point of view and cultural sex-role stereotype. In the SERLI sex-role discrimination is scored as a percentage of agreement between the child's forced-choice classification of the objects and the sex-role stereotype of those objects. The scoring of sex-role preference and confirmation is based on the order in which the sex appropriate items are chosen and the probabilities of making those choices.

Also used in this study was an instrument called the It Scale for Children (ITSC) which is a toy choice test, and the Toy Preference Test which is a picture choice measure.

Thompson (1975) used a series of tests designed to measure the ability of 24-, 30-, and 36-month-old children to apply various gender labels to the appropriate sexes, their capacity to place themselves in their own gender category, and their usage of labels to guide preference behavior. A Mother Questionnaire presented information on education of parents, children's playmate patterns and preschool experience. Both parents filled out a Sex-Role Acceptance Questionnaire. A Receptive Language Test was used to demonstrate the child's ability to follow instruction, general vocabulary and receptive language ability. A Gender Label Identification Test included picture pairs. The subjects also completed a Self-Sort Task of sorting photographs of boys and girls. In the Verbal Gender Questions test, the child responded to questions. The battery also included a labeled Picture Preference Test and an Auditory Gender Label Preference Test. The final test was the Sex-Role Stereotype Test which consisted of pictures from mail order catalogs. The subject was asked to put things for mothers and girls in one box, and things for boys and fathers in another box.

In research conducted by Flerx, Fidler and Rogers, (1976), a total of 122 children participated in two experiments that examined the utility of symbolic modeling stimuli in modifying sex-role stereotypes. The method employed to investigate sex-role stereotypes was a doll-choice technique. The children were questioned on a

variety of sex-typed activities. Treatment of exposure to non-sexist literature and films followed. The children were then retested.

Dolls were used again in a study by Kuhn, Nash and Bruckins (1978). The subjects selected which of two paper dolls, one male and one female, made statements involving sex-typed traits. Pictures containing a background setting or objects appropriate to the sex-typed trait accompanied the statements.

A children's picture-story technique known as the Sex Stereotype Measure (SSM), and a revised version (SSMII) have been used in a variety of studies. Developed by Williams, Bennett and Best (1975), the SSM is a set of pictures and one and two line stories which accompany them. The subject points to the picture that the story is about. The SSM II was used by Reis and Wright to examine the sex stereotypic knowledge of three year old children.

In a research project designed to examine the effects of gender labeling on young children, 20 boys and 20 girls ages three and five were shown a five minute video tape of a boy and a girl infant engaged in a variety of activities. One of the infants was labeled a girl and the other a boy. The labels were reversed for half of the subjects. Each child was then asked to respond to a series of 12 adjectives, nine representing sex-stereotypic dimensions. The findings indicated that both three and five year old children responded in a significantly stereotypic manner based on the

gender labels provided, regardless of the infant's actual gender (Haugh, Hoffman, & Cowan, 1980).

Observation of children at play has been used in several studies to determine sex-role preference and perceptions. Matthews (1981) observed the fantasy play episodes of 16 four-year-old children. At times, children actually identified themselves as male or female. Other times the children's roles were identified by the labels they placed on the objects incorporated into the fantasy. A third type of role play involved the children performing tasks.

In another study Eisenberg-Berg, Boothby and Maston (1979) examined the relationship of preschool girls' toy preferences during play to several variables that tend to differentiate boys and girls in their play. In this observational study, the variables of activity levels, physical size, dress, number of social interactions with boys and girls, preference for indoor and outdoor play were examined.

Both observation and questioning were combined in research conducted by Eisenberg, Murry and Hite (1982). Whenever a child played with a designated masculine, feminine or neutral toy, the experimenter approached and asked "what is it you like about that toy?" In another test situation, the children were told to pretend they had a birthday party and received the four toys placed in front of them. The children were questioned about which toy they liked best,

what they liked about the toy, and which was the worst toy, and why.

Culture Fair Testing

The instrument chosen for this study, the SERLI, which was briefly described earlier in this chapter, uses line drawings of objects and activities. All of the children and adults depicted in the drawings are Caucasian. The activities in which they are involved are typical of American, middle-class society. The objects are also items found in American, middle-class homes. Therefore, using this test with minority groups may not predict for the minority child what they predict for the white, middle-class child (Samuda, 1975). But, no test is universally applicable or equally fair to all cultures and any test tends to favor individuals from the culture in which it was developed (Gronlund, 1968). This researcher feels it is important to not exclude minorities from the study just because the instrument may be culturally biased.

In recent years the topic of ethnic and racial bias in testing has gained a great deal of attention from educators (Schmidt & Hunter, 1974). The literature revealed several important concepts to keep in mind when testing varied ethnic groups and reporting the results. The first step in culture fair testing is to ensure that all persons fully understand the tasks involved in the test (Jensen, 1980). Other ways to

avoid culture loaded testing are to administer performance tests, give oral instructions, use pictoral test items, elicit oral responses and ensure that the item content is highly familiar to the subjects (Jensen 1980, & Gronlund, 1968).

In addition, the testing atmosphere should be comfortable and meet the learning styles needs of the subjects (Mackler and Holman, 1976). Also, when reporting and utilizing test scores, one must make fair use of them. Since there are many different uses that can be made of a particular test or inferences that can be based upon it, it is entirely possible that one use or inference is fair, when another is not (Thorndike, 1981).

A study conducted with 228 three- and five-year-old children was designed to reveal reactions to pictures of persons of different skin color. The children were given choices of skin colors in a picture inset exercise. For the white, upper-class children, skin color was not perceived as an important factor and they simply matched the skin colors. The black children more often chose white over the brown tones and showed little more than chance frequency in matching skin colors (Landreth & Johnson, 1953).

Mary Ellen Goodman (1952) analyzed race awareness of young children. She discovered that young children pay attention to race just as soon as they pay attention to other physical attributes like age and sex. She noted that mere intellectual awareness of the physical signs of race was not

all of the story. Young children learn cultural traits, standardized ideas and feelings about attributes, and expectations and limitations linked to race.

The non-white children participating in this study may not identify with the items and activities presented in the SERLI. Their responses may be influenced by the white children and adults depicted in the pictures. The literature cautions educators to take these limitations, and the others mentioned above, into consideration when testing children of various cultures.

Childrens' Perceptions of Occupational Sex-role Stereotypes

This manifestation of sex-role stereotyping is included in the review of the literature because occupational stereotyping is perhaps the most evident form of the limitations imposed by stereotyping. Six research studies will be summarized to highlight this specific area of sex-role stereotyping.

Getty and Cann (1981) conducted a study in which male and female children ranging in age from two-and-a-half to eight years were asked to indicate for each of ten occupations whether a male or female adult would be most likely to engage in the occupation. Five traditionally male and five traditionally female occupations were presented in

random order. The results indicated that the children at each age level made a significant distinction between the two occupational groupings with the extent of the distinction increasing with age.

In a research project involving 540 kindergarten children the influence of gender on occupational aspirations was examined by Riley (1981). The children were given two assignments. The first was to draw a picture of what they would like to be when they grow up. The second assignment was to pretend they were the opposite sex and again draw a picture of what they would like to be when they grow up. The children were asked to identify the occupations they depicted. The girls in the study selected occupations that averaged 87% female and the boys selected occupations averaging 84% male. The boys perceived a significantly wider range of vocational options than the girls.

A study involving children ranging in age corresponding to kindergarten to grade six participated in a study conducted by Teglasi (1981). The children were asked to select toys and occupations under one of the following sets: (1) choose for a girl, (2) choose for a boy, (3) choose the best one. Results indicated that children made selections for boys and girls which were in accordance with culturally accepted stereotypes. However, children's selections of the best toys and occupations were more sex-typed in the masculine direction for boys than in the feminine direction

for girls. In addition, as the children grew older, their choices for occupations became more stereotyped.

Specifically geared to the medical occupations, the research engaged in by Cordua, McGraw and Drabman (1979) examined the sex-typing of the occupations of doctor and nurse. One hundred and twenty eight children ages five and six were shown four films depicting male and female doctors and nurses. Following each tape the experimenter used photographs of the people who had appeared in the films as props and asked the children a series of six questions. Results showed that when confronted with counter-stereotypical occupational portrayals, children were likely to re-label them into the typical male doctor and female nurse.

Older children as well as first graders participated in a study conducted by Garett, Ein and Tremaine (1977). The children were asked to rate each of 40 adult occupations as male, female or neutral. Results indicated that for jobs stereotyped as neutral or male by the children, older children were more flexible in their stereotypes than young children. Within the neutral and male job classifications, males rated the jobs as more male oriented than did females, and within the female job classification, there were no age or sex disagreements.

The last study to be referred to in this section was conducted to determine children's career preferences, the degree to which they perceive occupations as limited to one

sex exclusively, and the perceptions of parents' power distribution of children ages 7-11. It was determined that the presence of a working mother is not related to career preference. It was found that maternal power is significantly related to preference for less stereotyped careers and girls who perceive more occupations as limited to one sex exclusively have preferences for more sex-typed careers (Lavine, 1982).

The studies mentioned above illustrate the rigid sex-role stereotypes of young children in the area of occupations. This specific area was included to emphasize the limiting forces sex-role stereotyping promotes.

The Effects of the Family on Sex-Role Stereotyping by Young Children

In this section the effects of the family will be discussed. The literature contains studies focused on the family in general and several specialized areas including father absence, maternal employment, divorce, father role and family structure. The effects of parent absence, divorce and maternal employment will be grouped together.

In their review of the literature on the effects of parent absence on children, Marino and McCowan (1976) stated that in father absent homes, male children tend to have more feminine self-concepts and indicated that the earlier the absence occurs, the greater this disruption of the

identification process. Males with older brothers and females with older sisters were less disrupted by same sex parental absence. It was also noted that males were more apt to be influenced by sex-role standards outside the home, while females were more influenced by family members.

Drake and McDougall (1977) collected data on 58 second grade boys, 29 with fathers present and 29 with fathers absent. Measures of sex-role orientation, preference and adoption were administered to test several hypotheses dealing with the degree of appropriate sex-role orientation, preference and adoption. It was reported that father absence showed significant effects on sex-role orientation.

The sex-role self concepts of single divorced parents and their children (ages 10-19) were assessed using the Bem Sex-Role Inventory. Both the scores of mothers and fathers showed high levels of androgyny. The children were classified as androgynous or undifferentiated with boys being more androgynous and girls more undifferentiated. This finding questions the two studies mentioned previously in which it was found that boys reared in mother-headed families become more feminized (Kurdek & Siesky, 1980).

In research conducted by MacKinnon, Brody and Stoneman (1982) the effects of divorce and maternal employment were studied. The data suggested that maternal employment may result in less sex-typing in preschool children. The boys from married households where the mothers were not employed

had more sex-typed items in their rooms than boys and girls from families with employed mothers.

In another study on maternal employment, similar results were found. Maternal employment and the development of sex-role stereotyping in five- to eleven-year-old girls was studied in a research project conducted by Marantz and Mansfield (1977). These two hypotheses were confirmed: (1) daughters of working mothers had fewer sex-role stereotypes than daughters of non-working mothers, and (2) the stereotypes of both groups relaxed with increasing age. Stereotyping was maximally influenced by maternal work status at ages seven-to eight; five- to six-year olds showed rigid stereotyping. Fathers' participation in household chores, while associated with maternal employment, had no independent effect on daughters' sex-role stereotyping.

In an article written by Hoffman (1977), changes in family roles, socialization and sex differences were discussed. It was reported that maternal employment presents models of sex-roles which are less stereotypical and, consequently, the children's concepts of what males and females are is less differentiated. There is evidence that daughters of working mothers are more independent and autonomous. The article reported that a number of studies have found that female college students who are career oriented are more likely to be the daughters of working mothers. Also, highly educated professional women are more likely to have had working mothers.

In yet another study on maternal employment, the results were quite different. The purpose of research conducted by Seegmiller, (1980), was to determine whether maternal employment affects sex-role differentiation in preschoolers. Her results indicated that the fact of the mother working and the social status of her occupation were unrelated to sex-role differentiation, regardless of whether the child was a boy or girl, had brothers or sisters, both, or was an only child, or came from an intact or nonintact family.

The next portion will deal with the father's role in child care. Fathers' participation in the care of their preschool children was studied by Baruch and Barnett (1981). The subjects were 79 fathers and mothers of four-year-old girls and 36 fathers and mothers of a matched sample of preschool boys. Results indicated that father's independent performance of child care tasks was significantly and positively related to maternal work role variables and to non-traditional sex-role ideology of fathers and mothers. Independent participation was significantly and negatively related to daughters' stereotyping and to fathers' perceptions of themselves as stereotypically masculine.

In a study which also focused on the father role, Graeme (1978) examined femininity, masculinity and androgyny. Fathers classified as androgynous on the Bem Sex-Role Inventory were found to be more involved in day to day care and play activities than those classified as masculine. No relationship was found between mothers' child care behavior

and sex-role. It was noted that androgynous father models should facilitate the development of androgyny in children.

In a third study on fathers and sex-role development, Lynn (1976), with 90 boys ages eight to eleven, it was found that masculinity in a son appears to be related not to father's masculinity, but to a combination of his nurturance, dominance and participation in his son's care. A literature review by Lynn found fathers generally more concerned than mothers with sex-typing their children, particularly with boys, although they may be more effective in enhancing their daughter's femininity.

The literature revealed that family size and structure effect sex-role stereotyping. Barry (1980) studied 48 boys and 48 girls aged between 32 and 64 months. They were assessed for sex-role stereotyping using a toy preference technique. Scores for sex-role stereotyping were also obtained from both parents of each child as was information on the target child's siblings. It was found that older siblings are much more important in the development of stereotyping than are sexist parents.

The sexist treatment of children by parents was studied in the research conducted by Bell, Johnson, McGillicuddy-DeLisi and Sigel (1981). Middle sons in three-child families may be preempted by older brothers and the same-sex older sibling in the family may be the recipient of more parental attention than a later born. In far spaced families females received more attention than males, however, in one child

families, males received more attention than females. The results of the study indicated that gender effects on parent-child behavior were different in families with different family configurations.

Parent-child verbal interactions were examined by Stoneman and Brody, (1981). It was found that mothers spoke more to girls than they did with boys. Also, fathers spoke more with their sons than mothers did. However, fathers dramatically reduced the frequency of speaking to their sons when their wives were present. Mother's speech patterns with children did not change when the fathers were present. No differences were detected on any of the child language measures for family situation or gender of the child.

The composite of the results revealed that parental speech to young children is influenced by the gender of their offspring and the number of family members interacting in the situation.

In another study family constellation was the dominant factor in determining whether children play with toys usually favored by their own sex or expand their play to include toys more often chosen by the opposite sex (Tauber, 1979). One hundred sixty four children ages eight and nine were videotaped in free play sessions. Boys were found to be more active and aggressive and girls more sedentary and nurturant. It was determined that the child's relationship with the mother influenced sex typing in children's play choices.

Cross-sex play was found to be more common among children who came from single sex families.

Perhaps the most informative study on the effects of family constellation on children's acquisition of sex-roles was conducted by Katz and Rank (1981). In their research the sex-role behavior of 175 children between the ages of three-and-a-half and six years from one child and two child families was compared. Included in the design were five categories: only children plus four categories based on sex and siblings. Results indicated that the presence of siblings in the family was not an essential condition for learning sex-roles. Gender itself was found to be more important in determining sex-role content and orientation than are family constellation variables. Family constellation was not related to acquisition of gender constancy. Only children were generally more knowledgeable about various kinds of stereotypic information. Despite this, girls were less traditional in their preferences and more androgynous in their self descriptions.

The home is an important place to study the sex-role development of young children. Observations were made in the homes of 32 families in a study conducted by Smith and Daglish (1977). Sixteen boys and 16 girls between 12 and 24 months were observed. Boys showed more active play, more play with transportation toys, and more play generally forbidden by parents. Girls played with soft toys and dolls. Parents rated these behaviors as sex appropriate on a

questionnaire. It was not found, however, that parents with highly stereotypic views have children showing highly sex-typed behaviors.

Sex-typed play activities in the home can be further analyzed by another study of young children's use of toys in the home environment. Data gathered by Giddings and Halverson (1981) was from the childrens' homes. Toy availability in childrens' rooms was examined and the amount of toy play as assessed. Boys were found to spend significantly more time playing with vehicles than girls. Girls spent significantly more time playing with dolls. It appears that sex stereotyped play occurs in home settings as it does in preschool settings. Source of toys was identified. Mothers purchased most of the toys. Relatives and friends also supplied toys. Some mothers reported that toy buying was a parent-child joint task.

Sex-role stereotyping by parents of young children and parental perceptions or expectations of children's sex-roles should also be included in this section.

Segal (1981) studied 16 parents of boys and 13 parents of girls. The infants ranged in age from 20 to 37 weeks and all were first borns. It was found that although the mothers' and fathers' perceptions did not tend to differ from each other, perceptions of sons and daughters did tend to differ. Parents placed significantly more emphasis on the importance of their sons' masculinity, and less emphasis on their daughters' femininity.

Sex-role stereotyping by parents of at least one child five years old or younger in 88 families was examined. In this study it was found that in families with one child and multiple children of both sexes, little sex-role stereotyping by the parents was exhibited. However, a higher degree of sex-role stereotyping was exhibited by parents with multiple children of the same sex (Barber, 1975).

In a study conducted by Schau, Kahn, Diepold and Cherry (1980), parents expectations of toy play were examined. It was found that parents expected their children to play with culturally defined sex appropriate toys. Only boys matched this general expectation in their play. However, parents were not accurate in their predictions of the amount of their child's actual play with any of the gender groups of toys. Mothers accurately predicted their daughters' play and inaccurately predicted their sons' play with feminine toys.

Summary

The review of the literature supports the concept that children acquire highly stereotyped views of sex-roles at an early age, and two learning theories explain how these sex-roles are learned. It was noted that sex-role stereotyping has restrictive consequences for both females and males. One area most commonly targeted is occupational sex-role stereotyping, therefore, a section was included on

this limiting manifestation of stereotyping. Varied means for assessing sex-role stereotyping were described.

The review includes the effects of the family on sex-role stereotyping in young children. Many factors were included and support the concept that families contribute substantially to the sex-role stereotyping exhibited by young children.

In a broader sense than family, the culture of the child must also be acknowledged as a contributor to sex-role stereotyping. Educators should be sensitive to the needs of children from various ethnic groups and should take measures to assess children in a culturally fair manner.

CHAPTER III

RESEARCH METHODOLOGY

Introduction

The purpose of this study was to determine if relationships exist among the sex and family composition patterns of children aged three-and-one-half to five years, variables previous researchers have not combined in order to study interrelatedness, and sex-role stereotyping as measured by the Sex Role Learning Index.

The children were grouped into the following categories:

Female Child:

(1) one parent family, with a same-sex older sibling

(2) one parent family, without a same-sex older sibling

(3) two parent family, with a same-sex older sibling

(4) two parent family, without a same-sex older sibling

Male Child:

(5) one parent family, with a same-sex older sibling

(6) one parent family, without a same-sex older sibling

(7) two parent family, with a same-sex older sibling

(8) two parent family, without a same-sex older sibling

Instrument

The instrument used to measure sex-role stereotyping was the Sex Role Learning Index (SERLI). This study used four scores from the SERLI. The scores were for: 1) Own Sex-Role Discrimination, 2) Opposite Sex-Role Discrimination, 3) Child Activities Sex-Role Preference and 4) Adult Activities Sex-Role Preference.

The SERLI examiners kit contained 40 cards on which there were black and white drawings, three boxes in which to sort the cards, two display boards for display of the cards and recording forms. There were separate SERLI forms for girls and boys.

The first activity the children completed when being tested was to sort 20 drawings of objects into boxes labeled "boys", "girls", or "both boys and girls". After the initial sorting task, there was a forced choice. The object cards placed in the "both" box were sorted into either the "girls" or "boys" box. This activity yielded two scores, the Own Sex-Role Discrimination score and the Opposite Sex-Role Discrimination score. Sex-role discrimination referred to the child's awareness of sex-role stereotyping for use of

common objects. The range of scores was from 0-100 and a high score represented a high awareness of stereotypes.

Next, the children viewed a display of ten cards depicting children (the same sex of the child being tested) doing activities. The child selected cards from the display board in order of preference for the activity. The range of scores was from 20-80 and a high score indicated a strong preference for activities associated with one's own sex role.

The next part of the testing procedure was identical to the child activities section, but this time adult activity cards were used. The child chose activities in which she/he would like to participate as an adult. This section of the test yielded the Adult Activities Sex-Role Preference score.

The reliability information as reported in Table 1 suggests a same-sex experimenter is preferred. Product-moment correlations between the pre and posttest scores for the SERLI test sections are shown in Table 1. For all subtests correlations for children tested by a same-sex experimenter were higher than the correlation for those tested by an opposite-sex experimenter (Edelbrock, 1978).

Product-moment correlations between the Sex-Role Learning Index (SERLI) and the It Scale for Children (ITSC) are shown in Table 2. The It Scale for Children is a toy choice assessment instrument. (Children choose toys for a unisex black silhouette figure.) For boys all four SERLI scales were significantly related to the ITSC. For girls, scores on the child activities section were significantly

correlated with the ITSC (Edelbrock, 1978).

A complete copy of the SERLI is located in Appendix B.

Table 1

Test-Retest Reliabilities for the SERLI by Sex of the Experimenter

	Sex of Experimenter	
	Same as subject	Opposite of subject
SERLI Test Section	r value correlation coefficient	
Own Sex-Role Discrimination	.69**	.61**
Opposite Sex-Role Discrimination	.65**	.63**
Child Activities Sex-Role Preference	.90***	.43
Adult Activities Sex-Role Preference	.84***	.57*

* $p < .05$
** $p < .01$
*** $p < .001$

Table 2
Validity Correlations Between the Sex Role Learning Index (SERLI) and the It Scale for Children (ITSC) Scores

BOYS

	Sex Role Discrimination		Sex Role Preference	
	Own	Opposite	Child Activities	Adult Activities
	R Value Correlation Coefficient			
ITSC	.53***	.35*	.45**	.38**

GIRLS

	Sex Role Discrimination		Sex Role Preference	
	Own	Opposite	Child Activities	Adult Activities
	R Value Correlation Coefficient			
ITSC	.29	.19	.49**	.21

*p < .05
**p < .01
***p < .001

Subject Selection

The sample of 96 subjects, three-and-one-half to five years of age, was drawn from a population consisting of children enrolled in preschools and/or day care centers in Topeka, Kansas. There were 40 preschools and day care centers which met the criterion of providing either part day or full day care and learning experiences for 13 or more children, six weeks to 16 years of age. The 40 schools were all licensed by the state of Kansas and were located through a list provided by the Kansas State Department of Health and Environment.

Of the 40 schools, 23 were open during the testing period and had directors who were willing to participate in the study. The number of potential subjects from each school was listed with the name of the school for the selection process. During the selection in which a table of random numbers was used, the total number of potential subjects was tallied. When the tally reached 400, an arbitrary total, the selection process ended.

Letters were sent home with approximately 400 children aged three-and-one-half to five years. Then all children who had permission to participate had their family composition patterns, race and sex identified through a data collection form (See Appendix A) filled out by a parent of the child. Next, each was assigned to one of the family composition patterns groups, or was removed as a potential subject when

not fitting the criteria for one of the groups. By use of a table of random numbers subjects were randomly selected from each of the pools to represent the population for each of the family composition pattern groups.

There was an exception to the random selection process. It was difficult to locate children, both boys and girls, in the one parent, with a same-sex older sibling group. Therefore, the entire population was used rather than a randomly selected sample. In the girl's group there were two subjects and in the boy's group there were nine subjects.

The sample contained five Hispanic children, nine Black children, 69 Caucasian children, and 13 bi-racial children.

Data Collection

A team of five persons collected the data over a period of two weeks in July and August, 1984. A woman and man, both experienced preschool teachers, were trained to administer the Sex Role Learning Index (SERLI). Reliability information indicated that a tester the same sex as the subject was preferred. (See Table 1). A female and male recorder were also trained to assist the testers.

Prior to the actual testing the team visited each school to become acquainted with the children who were to be tested. The team tested in two schools per day. Testing was conducted in the morning only due to the fact that the children napped in the afternoon. Provisions were made to

have two small tables with three chairs each available for testing. The researcher met each child, placed a name tag on her or him and escorted each to the testing area. While walking to the testing area the child was informed that she or he would be doing an activity with some pictures. The subject and tester were seated facing each other. The recorder sat off to the side and did not interact in the testing situation. The test took about ten minutes per child. Each child was then escorted back to her or his classroom by the researcher.

Statistical Procedure

The statistical procedure used to analyze the data was a three-factor analysis of variance, (ANOVA), followed by the Scheffé post-hoc procedure. The alpha level was set at .05. The Bartlett and Cochran tests for homogeneity of variance were also conducted.

The SERLI yielded four scores, 1) Own-Sex Role Discrimination, 2) Opposite Sex-Role Discrimination, 3) Child Activities Sex-Role Preference and 4) Adult Activities Sex-Role Preference. The three factor ANOVA was conducted on each of the four scores.

Analysis of variance was chosen as the statistical procedure to be used because this study met the assumptions of ANOVA. The subjects fell into distinct groups so there was independence of observations. There was homogeneity of

variance. The dependent measure yielded interval data. An advantage for using three-factor ANOVA is that one can determine interaction among the variables if any exists.

The Scheffe' post hoc procedure was used to analyze the two-way interaction found by the ANOVA. The Scheffe' test for all possible comparisons was chosen because it may be used with unequal sample sizes and is a conservative measure. The Bartlett and Cochran tests for homogeneity of variance were conducted because of unequal N in the sample sizes.

Null Hypotheses

The research questions located in Chapter I have been restated as null hypotheses. They are included at this point to enable the reader to understand the relationships between the statistical procedure, groupings of subjects, and the research questions. They reflect all possible combinations of the independent variables. The null hypotheses have been numbered. Figures and tables included in Chapters III and IV refer to the hypotheses by number.

1. There will be no significant difference between mean scores on the Sex Role Learning Index (SERLI) for females and males.

2. There will be no significant difference between mean scores on the SERLI for children from one parent and two parent families.

3. There will be no significant difference between mean scores for children with a same-sex older sibling and those with no same-sex older sibling.

4. There will be no significant difference between mean scores on the SERLI for female subjects with a same-sex older sibling and female subjects with no same-sex older sibling.

5. There will be no significant difference between mean scores on the SERLI for male subjects with a same-sex older sibling and male subjects with no same-sex older sibling.

6. There will be no significant difference between mean scores on the SERLI for female subjects from two parent families and female subjects from one parent families.

7. There will be no significant difference between mean scores on the SERLI for male subjects from two parent families and male subjects from one parent families.

8. There will be no significant difference between mean scores on the SERLI for children from one parent families where there is a same-sex older sibling present and children from one parent families where there is no same-sex older sibling present.

9. There will be no significant difference between mean scores on the SERLI for children from two parent families where there is a same-sex older sibling present and children from two parent families where there is no same-sex older sibling present.

10. There will be no significant differences between mean scores on the SERLI for female subjects from two parent families where there is a same-sex older sibling present and female subjects from two parent families where there is no same-sex older sibling present.

11. There will be no significant differences between mean scores on the SERLI for male subjects from two parent families where there is a same-sex older sibling present and male subjects from two parent families where there is no same-sex older sibling present.

12. There will be no significant difference between mean scores on the SERLI for female subjects from one parent families where there is a same-sex older sibling present and female subjects from one parent families where there is no same-sex older sibling present.

13. There will be no significant difference between mean scores on the SERLI for male subjects from one parent families where there is a same-sex older sibling present and male subjects from one parent families where there is no same-sex older sibling present.

14. There will be no significant difference between mean scores on the SERLI for female subjects from two parent families where there is a same-sex older sibling present and female subjects from one parent families where there is a same-sex older sibling present.

15. There will be no significant difference between mean scores on the SERLI for male subjects from two parent families where there is a same-sex older sibling present and male subjects from one parent families where there is a same-sex older sibling present.

16. There will be no significant difference between mean scores on the SERLI for female subjects from two parent families with no same-sex older siblings and female subjects from one parent families with no same-sex older sibling present.

17. There will be no significant difference between mean scores on the SERLI for male subjects from two parent families with no same-sex older sibling present and male subjects from one parent families with no same-sex sibling present.

Diagrams of Cells in the ANOVA

The following seven figures show the variables in the ANOVA, the number of subjects associated with each cell and the hypotheses to which each cell corresponds. The null hypotheses are listed on pages 47-49 in Chapter III. The explanation accompanying each figure explains the interaction or main effect it represents. The diagrams are included to help the reader visualize how the statistical analysis is related to the variables and hypotheses in the study.

Figure 1 illustrates the variables included in the study. This represents a three way interaction between sex,

parent and sibling. Each cell represents one of the eight groups of subjects, gives the number of subjects, and shows which null hypotheses are represented by each cell.

It should be noted that in cells number one and five (shown in Figure 1) there are relatively few subjects. The small N reflects a shortage of subjects in the population. When the analyses were conducted significant results were only found when cells were collapsed across sex (see Figure 3) and the N was increased to 11. The Bartlett and Cochran tests for homogeneity of variance were conducted to determine if the cell size of 11 was a problem. It was found that the homogeneity of variance assumption was not violated (Cochran, $C(23, 4)$, $p = .307$, Bartlett, $F(3, 10216)$ $p = .181$).

Figure 1: Diagram of the eight cells.

A_1
Female

	B_1 one parent	B_2 two parent
C_1 with same-sex older sibling	cell #1 N = 2 Hypotheses #: 10,12	cell #2 N = 14 Hypotheses#: 12,16
C_2 without same-sex older sibling	cell #3 N = 13 Hypotheses #: 10,14	cell #4 N = 16 Hypothesis #: 14,16

A_2
Male

	B_1 one parent	B_2 two parent
C_1 with same-sex older sibling	cell #5 N = 9 Hypotheses#: 11,13	cell #6 N = 14 Hypotheses #: 13,17
C_2 without same-sex older sibling	cell #7 N = 14 Hypotheses#: 11,15	cell #8 N - 14 Hypotheses #: 15,17

Figure 3 illustrates the content of the cells when the sex factor is removed. This represents a parent by sibling two-way interaction. It shows which cells have been combined, to which hypotheses they correspond, and the total N.

Figure 3: Diagram of cells collapsed across sex.

	B_1 one parent	B_2 two parent
C_1 with same-sex older sibling	cells # 1 and 5 N = 11 Hypothesis #: 8 X = 65.81	cells # 2 and 6 N = 28 Hypothesis #: 9 X = 53.42
C_2 without same-sex older	cells # 3 and 7 N = 27 Hypothesis #: 8 X = 54.44	cells # 4 and 8 N = 30 Hypothesis #: 9 X = 58.76

Figure 4 illustrates the content of the cells when the sex factor is removed. This represents a sex by parent two way interaction. It shows which cells have between combined, to which hypotheses they correspond, and the total N.

Figure 4: Diagram of cells collapsed across siblings.

		A_1 Female	A_2 Male
C_1	one parent	cells # 1, 3 N = 15 Hypothesis #: 6	cells # 5, 7 N = 23 Hypothesis #: 7
C_2	two parent	cells # 2, 4 N = 30 Hypothesis #: 6	cells # 6, 8 N = 28 Hypothesis #: 7

Figure 5 illustrates the content of the cells when the parent and sibling factors have been removed. This represents a sex main effect. It shows which cells have been combined, the total N and to which hypotheses they correspond.

Figure 5: Diagram of cells collapsed across parents and siblings.

A_1 Female	A_2 Male
cells # 1, 2, 3, 4	cells # 5, 6, 7, 8
N = 45	N = 51
Hypothesis #: 1	Hypothesis #: 1
Child X 51.40	Child X 60.71
Child X 52.40	Child X 59.99

Figure 6 illustrates the content of the cells when the parent and sex factors have been removed. This represents a sibling main effect. It shows which cells have been combined, to which hypotheses they correspond, and the total N.

Figure 6: Diagram of cells collapsed across parents and sex.

C_1 with same sex older sibling	C_2 without same sex older sibling
cells # 1, 2, 5, 6	cells # 3, 4, 7, 8
N = 39	N = 57
Hypothesis #: 3	Hypothesis #: 3

Figure 7 illustrates the content of the cells when the sex and sibling factors have been removed. This represents a parent main effect. It shows which cells have been combined, to which hypotheses they correspond, and the total N.

Figure 7: Diagram of cells collapsed across sex and siblings.

B_1 one parent	B_2 two parent
cells # 1, 5, 3, 7	cells # 2, 6, 4, 8
N = 38	N = 58
Hypothesis #: 2	Hypothesis #: 2
X = 65.00	X = 76.21

Summary

In this chapter the Sex Role Learning Index was described in detail. Subject selection was explained. The data collection procedures were described. In the section on statistical procedures, the analyses used were explained. They included three factor analysis of variance (ANOVA), the Scheffe post-hoc procedure and the Bartlett and Cochran tests for homogeneity of variance. Next, the null hypotheses were listed. The diagrams of the cells included in the three factor ANOVA reflected the relationships among the variables, statistical procedures and hypotheses.

CHAPTER IV

ANALYSES OF THE DATA

Introduction

The purpose of this study was to determine if relationships exist among the sex and family composition patterns of children ages three-and-one-half to five years, variables previous researchers have not combined in order to study interrelatedness, and sex-role stereotyping as measured by four test sections of the Sex Role Learning Index (SERLI).

The results reported in Table 3 illustrate the relationship between the hypotheses, main effects and interaction. Table 3 also reports the significance of the F-ratios. Table 4 gives cell means for each of the test sections. Then the significance of the F ratios are reported and explained. Finally, the summary indicates the status of each hypothesis in this study.

Results

A three way factor analysis of variance (ANOVA) was performed on each of the four test sections: 1) Own Sex-Role Discrimination (SRD), 2) Opposite Sex-Role Discrimination

(SRD), 3) Child Activities Sex-Role Preference (SRP), 4) Adult Activities Sex-Role Preference (SRP). The significance of the F's were generated by the SPSS computer analysis program for the main effects and interactions. Table 3 combines the significance of F ratios from the ANOVA tables for the four SERLI test sections. (Appendix C contains complete ANOVA tables).

In Table 3 the significance of the F of 0.016 for parent main effect located in the Own Sex-Role Discrimination section of the SERLI shows that hypothesis two was rejected.

The significance of the F of 0.000 found for sex main effects in both the Child and Adult Activities Sex-Role Preference test sections indicates that hypothesis one was rejected. In the parent by sibling two-way interaction, the significance of the F of 0.044 indicates that hypotheses eight and nine were rejected. All other null hypotheses were retained. (See Chapter III, pp. 49-52 for a complete listing of the null hypotheses).

Table 3

Significance of the F Ratio and Hypotheses Relationship to Main Effects and Interactions.

	Signficance of the F ratio for test Sections of the SERLI				
	Own SRD	Opposite SRD	Child SRP	Adult SRP	Null Hypotheses
Main Effects:					
Sex	0.871	0.071	0.000**	0.000**	1
Parent	0.016*	0.979	0.599	0.304	2
Sibling	0.631	0.390	0.353	0.516	3
Two-Way Interactions:					
Sex by sibling	0.938	0.892	0.470	0.707	4, 5
Sex by parent	0.411	0.462	0.503	0.533	6, 7
Parent by sibling	0.754	0.254	0.044*	0.917	8, 9
Three-Way Interaction:					
Sex by parent by sibling	0.279	0.896	0.192	0.627	10, 11, 12, 13, 14, 15, 16, 17

*p <.05

**p <.001

Table 4 reports the three way ANOVA cell means for each of the four SERLI test sections: 1) Own Sex-Role Discrimination (SRD), 2) Opposite Sex-Role Discrimination (SRD), 3) Child Activities Sex-Role Preference (SRP), 4) Adult Activities Sex-Role Preference (SRP). (Appendix D contains complete means and standard deviations tables.) This table has been included to enable the reader to compare cell means for all four of the SERLI test sections.

Table 4

Cell Means for SERLI Test Sections for the Three Factor ANOVA

A_1 female

		B_1 one parent		B_2 two parent	
C_1	with same-sex older sibling	cell # 1		cell #2	
		own SRD	70.00	own SRD	75.00
		opposite SRD	80.00	opposite SRD	74.30
		child SRP	47.50	child SRP	48.21
		adult SRP	47.50	adult SRP	53.50
		N = 2		N = 14	
C_2	without same-sex older	cell # 3		cell # 4	
		own SRD	60.77	own SRD	79.38
		opposite SRD	64.62	opposite SRD	74.40
		child SRP	52.54	child SRP	53.80
		adult SRP	50.50	adult SRP	53.62
		N = 13		N = 16	

A_2 male

		B_1 one parent		B_2 two parent	
C_1	with same-sex older sibling	cell # 5		cell # 6	
		own SRD	61.11	own SRD	75.71
		opposite SRD	72.22	opposite SRD	60.71
		child SRP	65.00	child SRP	58.64
		adult SRP	59.00	adult SRP	58.71
		N = 9		N = 14	
C_2	without same-sex older sibling	cell # 7		cell # 8	
		own SRD	70.71	own SRD	74.29
		opposite SRD	60.71	opposite SRD	61.43
		child SRP	56.21	child SRP	64.50
		adult SRP	60.07	adult SRP	61.80
		N = 14		N = 14	

Report of Significant F Ratios

The significant parent main effect reported in Table 5 means that children from two parent families (X = 76.21) were more aware of sex-role stereotypes with regard to what is appropriate for one's own sex, than children from one parent families (X = 65.00).

Table 5

Own Sex-Role Discrimination Test Scores

ANOVA Table

Source of Variation	Sum of Square	DF	Mean Square	F	Significance of F
Main effect: number of parents	2985.618	1,88	2985.618	6.053	0.016*

*p <.05

The significant sex effect shown in Table 6 means that male children (X = 60.71) were more sex-role stereotyped than female (X = 51.40) children with regard to preference for children's activities. The Scheffe post hoc procedures, set at alpha .05, was used to determine where the two way interaction, which is shown in this table, occurred. It was found in the parent by sibling interaction. Figure 3 on page 56 is a diagram of the parent by sibling two way interaction. Significant differences were observed between the combined

cells 1 and 5 ($\underline{M}$ = 61.81, SD = 12.87) and the combined cells 2 and 6 ($\underline{M}$ = 53.43, SD = 10.77), and between the combined cells 1 and 5 ($\underline{M}$ = 61.81, SD = 12.87) and the combined cells 3 and 7 ($\underline{M}$ = 54.44, SD = 8.86). (See Table 5 in Appendix D for the means and standard deviations for the two-way interaction.)

Tests for homogeneity of variance were performed on the cells contained in the significant two-way interaction because of unequal N and homogeneity was found. (Cochran, C(23,4), p = .307, Bartlett, F(3,10216), p = .181).

The two-way interaction indicates that children (both male and female) from one parent families (X = 65.81) where a same-sex older sibling is present were more sex-role stereotyped with regard to preference for children's activities than children from one parent families where no same-sex older sibling was present (X = 54.44), and children from two parent families where a same-sex older sibling was present (X = 53.42).

Table 6

Child Activities Sex-Role Preference Test Scores

ANOVA Table

Source of Variation	Sum of Square	DF	Mean Square	F	Significance of F
Main effect					
Sex	2159.830	1,88	2159.830	19.347	0.000*
Two-way Interaction					
Parent by Sibling	466.177	1,88	466.177	4.176	0.044**

*p < .001
**p < .05

The sex main effect indicated in Table 7 means that male children (X = 59.98) were more stereotyped than female (X = 52.40) children with regard to preference for adult activities.

Table 7

Adult Activities Sex-Role Preference Test Scores

ANOVA Table

Source of Variation	Sum of Square	DF	Mean Square	F	Significance of F
Main Effects					
Sex	1471.822	1,88	1471.822	15.498	0.000*

*p < .001

Summary

Several null hypotheses were rejected as the data presented in the previous tables show. The two parent main effect found in the Own Sex-Role Stereotyping Discrimination section of the SERLI causes the following hypothesis to be rejected.

#2. There will be no significant difference between mean scores on the SERLI for children from one parent and two parent families.

This study found that children from two parent families were more aware of sex-role stereotypes with regard to what is

appropriate for one's own sex, than children from one parent families.

The significant sex main effect found in the Children's Activities Sex-Role Preference section of the SERLI leads to the rejection of the following hypothesis.

#1. There will be no significant difference between mean scores on the SERLI for females and males.

The sex main effect found to be significant in the Adult Activities Preference section of the SERLI also rejects Hypothesis #1. In both of these significant sex main effects it was found that male children were more sex-role stereotyped than female children with regard to preferences for activities.

The two way interaction between parent and sibling obtained in the Child Activities Sex-Role Preference section of the SERLI leads to rejection of two hypotheses.

#8. There will be no significant difference between mean scores on the SERLI for children from one parent families where there is a same-sex older sibling present and children from one parent families where there is no same-sex older sibling present.

#9. There will be no significant difference between mean scores on the SERLI for children from two parent families where there is a same-sex older sibling present and children from two parents

families where there is no same-sex older sibling present.

The two-way interaction was obtained when the sex variable was collapsed. The interaction indicated that both female and male children from one parent families where a same-sex older sibling is present were more sex-role stereotyped with regard to preference for children's activities than children from one parent families where no same sex older sibling was present, and children from two parent families where a same-sex older sibling was present.

All other null hypothesis were not rejected. They included numbers 3, 4, 5, 6, 7, 10, 11, 12, 13, 14, 15, 16, and 17. (A complete listing of the null hypotheses is in Chapter III on pages 47-49.)

CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Summary of the Study

The purpose of this study was to determine if relationships exist among sex and family composition patterns of children aged three-and-one-half to five, and sex-role stereotyping as measured by the Sex Role Learning Index.

The eight family composition patterns included combinations of these variables: two parent families, one parent female headed families, families in which there was a same-sex older sibling as the subject, and families where no same-sex older sibling was found.

The review of the literature supported the concept that young children possess stereotyped views of sex-roles. Also, the review pointed out that various factors within the family contribute to sex-role stereotyping.

The subjects were 96 children aged three-and-one-half to five years who attended seventeen preschools in a midwestern city. The children were given the Sex Role Learning Index (SERLI) which measured Own Sex-Role Discrimination, preference, Opposite Sex-Role Discrimination, Child Activities Sex-Role Preference and Adult Activities Sex-Role Preference.

The statistical procedure used was a three factor analysis of variance. It was performed on each of the four test scores. Significant differences were found in three of the test sections. In the Own Sex-Role Discrimination section, it was found that children from two parent families were more aware of sex-role stereotypes with regard to what is appropriate for one's own sex, than children from one parent families.

A significant sex main effect was found in the Child Activities Sex-Role Preference section. Male children were more sex-role stereotyped than female children with regard to preference for children's activities. The significant two-way interaction found in this section of the test indicated that both female and male children from one parent families where a same-sex older sibling is present were more sex-role stereotyped in children's activities selection than children from one parent families where no same sex older sibling is present and children from two parent families where a same-sex older sibling is present.

In the Adult Activities Sex-Role Preference section a significant sex main effect was found for males. Male children were found to be more sex-role stereotyped than female children with regard to preference of adult activities.

Conclusions

Based on the results of the study the following conclusions may be drawn. The young children in this sample have formed strong sex-role stereotypes by the age of five. Children from two parent families were significantly more aware of own sex-appropriate objects in this activity than were children from one parent families. Male children are more sex-role stereotyped than female children with regard to activity chores. Also, the presence of a same sex older sibling was found to be a significant factor.

The review of the literature revealed studies which support the concept that young children have formed strong sex-role stereotypes. Many studies using children aged 20 months to six years demonstrated that children possess substantial knowledge of sex-role stereotypes (Eisenberg, Murray, & Hite, 1982; Thompson, 1975; Reis & Wright, 1982; Williams, Bennett & Best, 1975; Kuhn, Nash, & Brucken, 1978; Estaugh & Riley, 1979; Blakemore, LaRue & Olejnik, 1979).

The children in this study were able to sort 20 object cards into traditionally female or male categories when asked to do so in a forced choice activity. They were highly aware of which objects are associated with which sex. It is recognized that the children were not given the option to be non-sexist in this section of the SERLI.

Studies dealing with single parent families reported that father absence had significant effects on sex-role

orientation (Drake & McDougall, 1977; Kurdek & Siesky, 1980). Also, it can be assumed that many of the single parents whose children were in this study held jobs. Studies about maternal employment indicate that children whose mothers are employed are less sex-role stereotyped (MacKinnon, Brody & Stoneman, 1982; Marantz & Mansfield, 1977; Hoffman, 1977).

Since children from one parent families in many cases observe one parent filling the role of two parents they naturally will perceive more role options and will be less sex-role stereotyped. The results of this study support that speculation. Perhaps one privilege of being raised in a one parent home is that one parent homes seem to foster less sex-role stereotyping by young children than do two parent homes.

The SERLI also measured Child Activities Sex-Role Preference. It was found that males were more stereotyped in their selections of activities than were females. In other words, girls in this study more often chose typically male activities than did boys choose female activities. In a study previously conducted on toy selection, the "best" toys were more often masculine (Teglasi, 1981). The literature often pointed out that male qualities, occupations, activities, and attributes were more highly valued and preferred over female activities.

In the Adult Activities Sex-Role Preference section of the test, the same results were found. Males were again more stereotyped in their selections of activities than were

females. Males seldom chose female occupations or roles. The review of the literature again supported this finding. In one study it was found that selection of occupations was more sex typed in the masculine direction for boys than in the feminine direction for girls (Teglasi, 1981).

It seems that girls more often desired to choose traditionally male activities than did males perceive the option or have the desire to choose female activities. Perhaps the male activities depicted were more exciting, action oriented, rewarding and more highly valued by society than were the female activities.

The presence of a same-sex older sibling was found to be a significant factor. A two-way interaction indicated that in one parent families where a same-sex older sibling is present, children were more stereotyped in children's activities selections than were children from a one parent family without a same-sex older sibling present. However, this interaction also indicated that in two parent families where a same sex older sibling is present, the children were less sexist than those in a one parent family where a same-sex older sibling was present.

The results of this interaction should be interpreted with caution. The significance of F was only .044. The N of the cells in the interaction was unequal. When there is unequal N in ANOVA, the .05 level may actually be inflated to .07.

The sibling effect was found in a study by Barry (1980). It was reported that older siblings were much more important in the development of stereotyping than are sexist parents. But, in another study, the presence of siblings in the family was not found to be an essential condition for learning sex roles (Katz & Rank, 1981). A contradiction was also found in the two-way interaction mentioned above. The sibling effect varied at levels of the parent factor. The same-sex older sibling significant effect was only found in one parent homes.

Recommendations

Homes and Schools

This study supported the concept that young children acquire sex-role stereotyping at an early age. Flerx, Fidler, and Rogers (1976) concluded that sex-role stereotyping has restrictive consequences when it produces mutually exclusive conceptualizations of appropriate behavior and attributes for both girls and boys. Sex-role stereotyping contradicts the educational goal of entitling all children to a fair chance of developing their individual potentials (Nation at Risk, 1983).

Therefore, both families and schools should acknowledge and understand the impact of sex-role stereotyping to begin to overcome its restrictive influences. This study pointed out the relationship between family composition and sex-role

stereotyping. As the results indicated, the young boys in this study were found to be more stereotyped than girls in two sections of the Sex Role Learning Index. Also, children from two parent families were found to be more stereotyped than children from one parent families. The presence of a same-sex older sibling may have increased sex-role stereotyping in children from one parent families.

Parents should recognize the stereotyping influences present in the home and take measures to overcome the potential for promoting sex-role stereotyping.

Parents can model roles traditionally limited to the opposite sex. They should have equal expectations of children of both sexes. All children should be given equal opportunity to pursue and develop talents and interests, and to assume responsibility. This can be achieved in many ways. Both boys and girls should be encouraged to develop their bodies through physical activities. All children should be given the opportunity to take leadership roles as well as helping roles. Both sexes should learn to value education as it relates to future career options. Both boys and girls should participate in domestic chores. All children should feel free to express emotions. These are just a few examples of how parents can actively create a non-sexist home environment.

Educators should provide curriculum which counteracts the sex-role stereotyping found in high-risk family composition patterns. A non-sexist curriculum uses bias-free

materials. Both girls and boys are equally represented in curriculum materials. All children are encouraged to be creative, nurturant, cooperative, independent, and to develop problem solving skills. Typically female activities and occupations as highly valued as those traditionally reserved for males. Perhaps boys should especially be targeted. They seem to be more rigid in their selection of traditionally sex-linked activities than are girls. Educators need to be trained in non-sexist education and in the development and use of non-sexist curriculum. A home-school partnership is a must for preventing the social ill of sex role stereotyping.

Methodology and Instrumentation

As with any research study using human subjects and experimenters, many factors influence the results. Random selection of subjects helps control for extraneous variables. Rigid guidelines for testing procedures minimizes variance in data gathering. However, if this study is replicated, some changes should be made.

It was observed that the children became tired by the third section of the test. In the future the order in which the sections are presented could be varied. The experimenters used in this study had approximately 30 years difference in their ages. Both possessed many of the same qualities desired in persons who work with young children, but their age difference may have effected the results. The instrument itself could be revised. The drawings did not

clearly represent the object or activity in many cases. The children and adults depicted were all Caucasian. Other cultures could be represented. The objects and activities should then be representative of all of the ethnic groups.

The instrument forced children to sex-link activities and objects. Perhaps it could be revised to better accommodate non-sex-role stereotyped choices. Also, in the ranking sections of the test, fewer than ten choices could be used. Ranking ten items may be too difficult for young children.

Another factor which should be examined is the age range of the subjects. The 18 month spread may have affected the results.

Future Study

Several areas of this study could be topics for future research. The same-sex older sibling factor seemed to be unclear. Future study could focus on this variable. It was difficult to obtain children from one parent families with same-sex older siblings. This shortage in the sample and population needs to be studied.

The instrument should be revised according to the recommendations outlined in the previous section. Also, the study could be conducted using an additional, similar instrument to see if the same results are obtained.

A similar population could be located and the study replicated to see if similar results are reported.

Many other variables could be added to the study. It would be helpful to relate the results to birth order, maternal employment, culture, socio-economic status, educational level of parents, curriculum used in the schools, and sexism of parents and teachers. Results of such studies would aid parents and educators in understanding the impact of sex-role stereotyping in order to overcome its restrictive influences.

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